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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,112	09/17/2003	Gene A. Bornzin	A03P1063	9340
36802	7590	05/19/2006	EXAMINER	
PACESETTER, INC. 15900 VALLEY VIEW COURT SYLMAR, CA 91392-9221			JOHNSON, SHEVON ELIZABETH	
			ART UNIT	PAPER NUMBER
			3766	
DATE MAILED: 05/19/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/667,112

Applicant(s)

BORNZIN, GENE A.

Examiner

Shevon E. Johnson

Art Unit

3766

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9, 13-16 is/are rejected.
- 7) ☒ Claim(s) 7,8 and 10-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/17/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 9, 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kleks et al. (U.S. Patent No. 5,350,410) in view of Poore et al. (U.S. Patent No. 6,731,985), as cited by the examiner.

In regards to claims 1 and 5, Kleks discloses a method comprising: delivering a first stimulus 22 to a heart chamber and acquiring an intracardiac electrocardiogram that includes an evoked response; delivering a second stimulus 28 to the heart that does not capture the heart, and acquiring an intracardiac electrocardiogram that includes an afterpotential 30 (col. 9, lines 11-4; fig. 1B). Poore teaches repeating the delivering of a first stimulus and the acquiring an intracardiac electrocardiogram that includes an evoked response one or more times; and generating an ensemble average based on the intracardiac electrocardiograms that include evoked responses and that include an afterpotential (col. 9, lines 1-10; col. 13, lines 1-10; col. 15, lines 10-30).

One having ordinary skill in the art would appreciate that Kleks and Poore could be combined since they both teach a method of processing intracardiac electrocardiogram signals, and thus the references are analogous art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method as taught by Kleks, by incorporating the method of accumulating a number of signal and generating an ensemble average as taught by Poore, this modification is done in order to provide to reduce or eliminate the signal to noise ratio.

In regards to claims 2 and 6, Poore discloses a method wherein an atrial stimulus is delivered and the acquiring acquires an atrial intracardiac electrocardiogram that includes an atrial evoked response (col. 8, lines 14-18).

In regards to claim 3, Poore discloses a method wherein a ventricular stimulus is delivered and the acquiring acquires a ventricular intracardiac electrocardiogram that includes a ventricular evoked response (col. 13, lines 1-10).

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In regards to claim 4, Kleks discloses a method wherein the generating comprises subtracting the intracardiac electrocardiogram that includes electrode potential artifact and no evoked response from one or more of the intracardiac electrocardiogram that include an evoked response (col. 4, lines 33-56).

In regards to claim 9, Poore discloses a method wherein the acquiring occurs within a time window (col. 4, lines 57-63; col. 13, lines 1-9).

In regards to claim 13, Kleks discloses a method comprising changing power of the intracardiac stimulus (col. 2, line 59 – col. 3, line 8; col. 5, lines 10-23; col. 13, lines 20-43).

In regards to claim 14, Kleks discloses a method wherein the changing follows the performing and further comprises repeating the delivering, the acquiring, the repeating and the performing col. 2, line 59 – col. 3, line 8; col. 5, lines 10-23; col. 13, lines 20-43).

In regards to claim 15, Kleks discloses a method comprising analyzing one or more ensemble averages with respect to power of the intracardiac stimulus (col. 2, line 59 – col. 3, line 8; col. 5, lines 10-23; col. 13, lines 20-43).

In regards to claim 16, Kleks discloses a method comprising: delivering a first stimulus 22 to a heart chamber and acquiring an intracardiac electrocardiogram that includes an evoked response; delivering a second stimulus 28 to the heart that does not capture the heart, and acquiring an intracardiac electrocardiogram that includes an afterpotential 30 (col. 9, lines 11-4; fig. 1B). Poore teaches delivering a subthreshold stimulus to the head, and acquiring an intracardiac electrocardiogram that includes an afterpotential (col. 14, lines 3-15, 27-29); repeating the delivering of a first stimulus and the acquiring an intracardiac electrocardiogram that includes an evoked response one or more times; and generating an ensemble average based on the intracardiac electrocardiograms that include evoked responses and that include an afterpotential (col. 9, lines 1-10; col. 13, lines 1-10; col. 15, lines 10-30).

One having ordinary skill in the art would appreciate that Kleks and Poore could be combined since they both teach a method of processing intracardiac electrocardiogram signals, and thus the references are analogous art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method as taught by Kleks, by incorporating the method of accumulating a number of signal and generating an ensemble average as taught by Poore, this modification is done in order to provide to reduce or eliminate the signal to noise ratio.

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Allowable Subject Matter

Claim 7, 8 and 10-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shevon Johnson whose telephone number is (571) 272-2010. The examiner can normally be reached on M-F (8 a.m. - 4:30 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shevon Johnson
Art Unit 3766


Robert Pezzuto
Supervisory Patent Examiner
Art Unit 3766